

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A composition comprising homo- and/or copolyoxymethylenes and multiblock copolymers containing the structural unit of formula I

-A-O-R¹-O-CO-(R²-CO-)_m-X-D-X-(CO-R²)_m-CO-X- (I),

where A is a radical derived from a homo- or copolyoxymethylene,
R¹ is an alkylene radical having at least two carbon atoms, or a cycloalkylene radical,

R² is a direct carbon-carbon bond, or an alkylene, cycloalkylene, arylene, or aralkylene radical,

X is selected from -O-, -S-, or -NH-,

D is a divalent radical B which is a radical of a hydroxy-terminated, mercaptan-terminated, or amino-terminated polymer which derives from polyalkylene glycols, from polyvinyl ethers, from polyvinyl ether copolymers with alkenes, from polyvinyl esters, from polyvinyl ester copolymers with alkenes, from polyvinyl alcohols, from polyvinyl alcohol-alkene copolymers, from polyvinyl aromatics, from polyacrylates, from polymethacrylates, from polyacetals which have from no, or up to 50 mol% of oxymethylene units, from polycarbonates, from polyesters, from polyamides, from polyimines, from polyetherester elastomers (PEEs), from polyetheramide elastomers (PEAs), from polyalkadienes which may, where appropriate, have been hydrogenated, from polyurethanes, from polyureas, or from polysiloxanes, or is a hydroxyterminated

triblock copolymer radical -PAO-B-PAO-, where B assumes one of the above meanings and PAO is a polyalkylene oxide radical, and

m is 0 or 1.

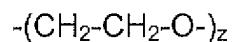
2. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein m is 0.

3. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein R¹ is a radical of the formula -C_nH_{2n}-, where n is a whole number from 2 to 6.

4. (Currently Amended) The composition multiblock copolymer as claimed in claim 3, wherein R¹ is -CH₂-CH₂-.

5. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein the polyoxymethylene radical A has from 99.9 to 90 mol% of repeat structural units of the formula -(CH₂-O-)_x, where x is a whole number from 100 to 10,000, and from 0.1 to 10 mol% of repeat structural units which derive from ethylene oxide, from propylene 1,2-oxide, from butylene 1,2-oxide, from butylene 1,3-oxide, from 1,3-dioxane, from 1,3-dioxolane, or from 1,3-dioxepan, from 1,3,6-trioxocane, and/or from linear oligo- or polyacetals, and/or from aldehydes, and/or from cyclic acetals.

6. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein the polyoxymethylene radical A has from 99.9 to 90 mol% of repeat structural units of the formula -(CH₂-O-)_x, where x is a whole number from 100 to 10,000, and from 0.1 to 10 mol% of repeat structural units of the formula



where z is a whole number which is at least 1.

7. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein X is -O-.

8. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein D is the radical of a hydroxy-terminated polymer which is selected from the group consisting of polyethers, polyalkadienes, polyesters, polyetheresters, polysiloxanes, polyetheramides, polyurethanes, or of triblock copolymers derived from non-hydrogenated or hydrogenated polyalkadiene which has been linked at both ends to a poly(alkylene oxide) block.

9. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim [[10]] 1, wherein D is the radical of a hydroxy-terminated non-hydrogenated or hydrogenated polybutadiene, or of a hydroxyterminated polyalkylene glycol.

10. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim [[10]] 1, wherein D is a radical $-(C_rH_{2r}-O^-)_o$, r is a whole number from 2 to 12, and o is a whole number from 6 to 25,000, where r may vary within the various repeat units within the scope of the stated definition, so that varying units are present in a random sequence or as blocks.

11. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein D is a radical $-(CH_2-CHR^7)_q-$, which, optionally also contains CO-units derived from alkenes, where R^7 is a group $-O-R^8$ or $-O-CO-R^8$, R^8 is hydrogen or an alkyl, cycloalkyl, aryl, or aralkyl radical, and q is a whole number from 2 to 5,000, where some of the radicals R^7 may also be -O- bonded to further blocks A.

12. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein D derives from hydroxy-terminated aliphatic polyesters or from hydroxy-terminated aliphatic/cycloaliphatic polyesters, or from hydroxy-terminated aromatic polyesters.

13. (Currently Amended) The composition multiblock copolymer as claimed in claim 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derive from chain-linking agents which are selected from the group consisting of derivatives of carbonic acid, or from activated urea derivatives, or from esters or half-esters of dicarboxylic acids, or from dianhydrides or diimides of tetracarboxylic acids, or from mixtures of two or more of these compounds.

14. (Currently Amended) The composition multiblock copolymer as claimed in claim [[14]] 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derives from diesters of carbonic acid.

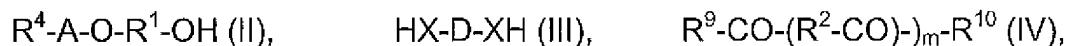
15. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim [[14]] 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derive from diesters of oxalic acid, of the aromatic dicarboxylic acids, and/or of the aliphatic dicarboxylic acids.

16. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim [[16]] 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derive from dimethyl esters or diphenyl esters of oxalic acid, of isophthalic acid, of phthalic acid, of adipic acid, or of sebacic acid.

17. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim [[14]] 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derive from oxybis(phthalic anhydride).

18. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim [[14]] 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derive from carbonyl N,N'-bis(caprolactamate).

19. (Withdrawn, Currently Amended) A process for preparing the composition of claim 1 multiblock copolymers encompassing the reaction of comprising reacting homo- or copolyoxymethylenes of the formula II with homo- or copolymers of the formula III, and with at least one chain-linking agent of the formula IV



where A, R¹, R², X, D, and m assume one of the meanings defined in claim 1,

R⁴ is a radical of the formulae -OH, -O-R⁵, -O-CO-R⁶, or -O-R¹-OH,

where

R¹ has one of the meanings defined in claim 1,

R⁵ is an alkyl, cycloalkyl, aryl, or aralkyl radical,

R⁶ is hydrogen or an alkyl, cycloalkyl, aryl, or aralkyl radical, and

R⁹ and R¹⁰, independently of one another, are alkoxy, cycloalkoxy, aryloxy, aralkyloxy, or a lactam radical bonded by way of the nitrogen atom, or where, in the case where m = 1, R⁹ and/or R¹⁰ together with another carboxylic acid group of the radical R² form an anhydride or imide group.

20. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein the reaction takes place in the presence of a catalyst which is a Lewis acid or is a Lewis base.

21. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein the catalyst used comprises the alkali metal or alkaline earth metal salts of acetylacetones, and/or alkali metal alkoxides or alkali metal phenoxides and/or lithium halides.

22. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein the reaction takes place at temperatures of from 100 to 240°C and the reaction time is from 0.5 to 60 minutes.

23. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein the amount used of compounds of the formula formulae II and III, per mole of chain-linking agents of the formula IV , is such that the content of the entirety of the end groups -O-R¹-OH and -XH present at the start of the chain-linking process is in the range from one quarter of one mol to four mol.

24. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein the reaction takes place at temperatures such that the reaction mixture is liquid, or such that a liquid phase forms in the reaction mixture.

25. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein, from a mixture of compounds of the formula formulae II, III and IV, optionally with a catalyst, and optionally from other additives, a molded structure is produced and is heated in a stream of gas and/or in a vacuum for a period such that the desired

molecular weight increase has been achieved, the temperature selected being such that the reaction mixture is solid.

26-31. (Cancelled)

32. (Currently Amended) A method for producing moldings, fibers, films, hoses, pipes, rods, or profiles which comprising which comprise blow molding or injection molding the composition multiblock copolymers as claimed in claim 1.

33. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim 10, wherein D is a radical $-(C_rH_{2r}O)_o$, r is a whole number from 2 to 12, and o is a whole number from 20 to 1,000.

34. (Withdrawn, Currently Amended) The composition multiblock copolymer as claimed in claim 10, wherein D is a radical $-(CH_2-CHR^7)_q-$, which optionally also contains CO-units derived from ethylene or propylene, where R⁷ is a group -O-R⁸ or -O-CO-R⁸, R⁸ is hydrogen or methyl or ethyl radical.

35. (Currently Amended) The composition multiblock copolymer as claimed in claim [[14]] 1, wherein the structural elements of the formula -X-CO-(R²-CO-)_m-X- derives from dimethyl or diphenyl carbonate.

36. (Withdrawn, Currently Amended) The process as claimed in claim [[20]] 19, wherein the catalyst used comprises lithium acetylacetone or sodium acetylacetone and/or sodium methoxide, sodium ethoxide or lithium methoxide, and/or lithium halide and the reaction takes place at temperatures of from 150 to 220°C and the reaction time is from 0.5 to 60 minutes.

37. (New) The composition as claimed in claim 1, wherein D is a divalent radical B which is a radical of a hydroxy-terminated, mercaptan-terminated, or amino-

terminated polymer which derives from polyalkylene glycols, polyvinyl ethers, polyvinyl ether copolymers with alkenes, polyvinyl esters, polyvinyl ester copolymers with alkenes, polyvinyl alcohols, polyvinyl alcohol-alkene copolymers, polyvinyl aromatics, polyacrylates, polymethacrylates, polyacetals which have from 0 to 50 mol% of oxymethylene units, polycarbonates, polyamides, polyimines, polyetherester elastomers (PEEs), polyetheramide elastomers (PEAs), polyalkadienes which may, where appropriate, have been hydrogenated, polyureas, polysiloxanes, or is a hydroxyterminated triblock copolymer radical -PAO-B-PAO-, where B assumes one of the above meanings and PAO is a polyalkylene oxide radical